## Takasi YAMAZAKI\*: New and noteworthy plants of Pedicularis from Nepal and Tibet (2)\*\*

山崎 敬\*: ネパール・チベット産シオガマギク属の 新種と新分布種(2)

Pedicularis oxyrhyncha Yamazaki, sp. nov. (Ser. Flexuosae).

Herba 5-23 cm alta. Radix recta simplex, saepe radiculos fiburosas emitit. Caulis ad basin ramosus, simplex gracilis ascendens, inferne glabrous superne bifariam breviter pubescens. Folia opposita plerumque caulina, petiolis tenuibus 2-25 mm longis glabris vel supra sparse pilosis, laminis membranaceis linearioblongis 3-15 cm longis 1.5-7 mm latis sparse albo-pilosis pinnatipartitis, rachidibus alatis, segmentis 4-6 jugis oblongis vel oblongo-ovatis apice acutis, acuminate serratis. Flores axillares vel in breviter racemum terminalem 1-4 nodosum siti, nodo uterque 2-florifero. Bracteae foliaceae late petiolatae, calycibus subaequilongae, sparse longi-pilosae. Pediceli graciles 2-10 mm longi glabri. Calyx membranaceus tubulosus 5-7 mm longus 1.5-2 mm latus sparse-subdense villosus, 5-lobatus, lobo postico setaceo acuminato integro circ. 1 mm longo, lobis lateralibus oblongis vel oblongo-ovatis inferne integris superne acuminato-dentatis 1.5-2 mm longis 1 mm latis. Corolla purpurea 1.5-3 cm longa sub lente sparse glanduloso-punctata, tubo recto 10-23 mm longo glabrescente vel sparse piloso, calyce 2-3 plo longiore, galeo valde decurvato, infra basin minute bidentato vel integro, parte antherigera 2-2.5 mm lato, versus apicem attenuate rostrato, rostris ca 6 mm longis apice oblique acutis, labio infimo ca 12 mm longo 14 mm lato, galeo subaequilongo vel leviter longiore 3-lobato, lobo medio orbiculato 5-6 mm longo et lato, lobis lateralibus semiorbiculatis ca 7 mm latis, margine Stamina, filamentis omnibus glabris, antheris oblongis ca 2 mm longis 1 mm latis, loculis basalibus obtusis.

Pedicularis porrecta affinis, sed a qua tubo collorae sparse piloso calice 2-3 plo longiore, galeo apice oblique acuto, labio infimo margine ciliato, foliis pinnatipartitis, segmentis acute serratis differt.

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<sup>\*\*</sup> Continued from Journ. Jap. Bot. 61(3): 77-79 (1986).

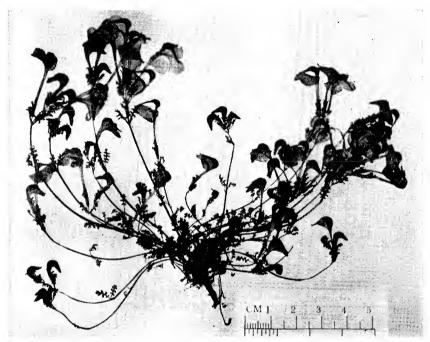


Fig. 1. Pedicularis oxyrhyncha (Ohashi et al. no. 772567).

Hab. C. Nepal: Ganja La, 85°35′E, 28°10′N, 15,000 ft. (Stainton, Aug. 4, 1962, no. 4116, BM, TI). E. Nepal: Thudam-Lamni Nama, 4000 m (Ohashi, Kanai, Ohba & Tateishi, Aug. 14, 1977, no. 770768, TI); Around Lamni Nama, 4150 m (Ohashi et al., Aug. 15, 1977, no. 773803, TI); Lamni Nama-Tasagon, 4400 m (Ohashi et al., Aug. 16, 1977, no. 770849, TI); Tasagon-Topke Gola, 4100 m (Ohashi et al., Aug. 17, 1977, no. 770870, Type, TI); Topke Gola-Jalang Chhyongo, 3900 m (Ohashi et al., Aug. 20, 1977, no. 772567, TI).

## Pedicularis muscoides Li subsp. himalayca Yamazaki, subsp. nov.

Pedicularis muscoides auct. non Li: Tsoong in Bull. Brit. Mus. (Nat. Hist.) Bot. 2(1): 33 (1955), in Fl. Reip. Pop. Sin. 68: 309 (1963), pro parte; Yamazaki in Journ. Jap. Bot. 45: 170 (1970), in Hara et al., Enum. Fl. Pl. Nepal 3: 124 (1982).

Calyx breviter glanduloso-pilosus, lobis margine pilis glandulosis et eglanduliferis immixtis obsitis; pinnae foliorum conspicue dentata.

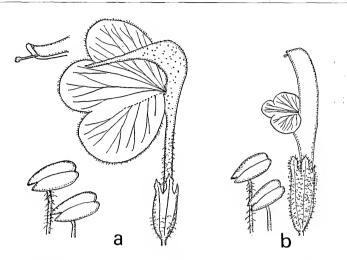


Fig. 2. a: Pedicularis oxyrhyncha. b: Pedicularis muscoides subsp. himalayca. ×3.

Hab. W. Nepal: Mukden Khola 19,000 ft (Polunin et al., June 21, 1952, no. 1181, BM). C. Nepal: Namdo, Mustang 16,500 ft. (Stainton, Sykes & Williams, Aug. 8, 1954, no. 2274, BM); Dolpo, Ccharka-Sangdah Pass, 83°30′E, 28°50′N, 16,500 ft. (Stainton, July 23, 1966, no. 5573, holotype TI, isotype BM); the same, 17,500 ft. (Shresta, July 23, 1966, no. 5431, TI). E. Nepal: W. of Hongu Khola-Mera, 86°45′E, 27°30′N, 15,500 ft. (McCosh, July 4, 1964, no. 366, TI, BM); Khumbu (Lyon, 1964, no. 2129, BM); Pheriche-Lobuche, Solukhumbu Distr. 4800 m (Tabata, Tuchiya & Shimizu, June 14, 1978, no. 10699, TI, KYO). S.E. Tibet: Mt. Nyâso between Shigatse and Lhasa (E. Kawaguchi, Aug. 2, 1914, no. 88, 92, TNS).

In the original description of *Pedicularis muscoides* Li it was reported that the calyx is glabrous, but the plants of Nepal and S.E. Tibet have the calyx densely covered with short glandular hairs. I have examined the isotype of this species preserved in the Herbarium of the Taiwan University (Mt. Konka, Risonquemba, Konkaling, Sikiang Prov., J.F. Rock, June 1928, no. 16343). Although this specimen has been much destroyed by insects, I could make sure of the fact that the calyx is glabrous, so that the plants of Nepal and S.E. Tibet are separated as a local variation.

Pedicularis paradoxa (Prain) Yamazaki, stat. nov.

Pedicularis instar Prain ex Maxim. var. paradoxa Prain in Journ. As. Soc. Bengal 58(2): 257 (1889), in Ann. Bot. Gard. Calcutta 3: 136, t. 26 E, f. 14-19 (1891).

Hab. Sikkim: Lachung valley 15,500 ft (Gammie, Aug. 15, 1891, no. 789, CAL); Lloush 14,000 ft. (Smith & Cave, July 30, 1909, no. 2097, CAL). E. Nepal: Around Lami Nama, on ridges, 4300-4400 m (Ohashi, Kanai, Ohba & Tateishi, Aug. 15, 1977, no. 770798, 775106, TI), new to Nepal.

This species differs from *Pedicularis instar* by the plants small, the leaves smaller and mostly radical, cauline leaves 1-2-paired, the inflorescences with 1-3 fascicles, each fascicle with 2 flowers. These characters indicate that this species should be belonged to Ser. Debiles, not to Ser. Brevifoliae.

**Pedicularis nodosa** Pennell in Monogr. Acad. Nat. Sci. Philad. 5: 119, t. 18 B (1943).

Hab. S. Tibet: Urai Lagna, open hillside, 17,000 ft. (J.B. Tyson, July 8, 1953, no. 87, BM, TI); N. of Milaum, 4400 m (G. Miehe, Sept. 3, 1984, no. 1835, TI); the same, upper alpine belt, 5330 m (G. Miehe, Sept. 2, 1984, no. 1837, TI).
Distr, Himalaya from Almora to C. Nepal and S. Tibet. New to Tibet.

Pedicularis heydei Prain in Journ. As. Soc. Bengal 58(2): 258, t. 2 (1889). Hab. S. Tibet: Manga Chu, 87°35′E, 28°50′N, in moist Kobresia pygmaea flushs, 5000 m (G. Miehe, Aug. 29, 1984, no. 1343, TI).

Distr. Himalaya from Kashmir to E. Nepal and S. Tibet. New to Tibet.

Pedicularis anas Maxim. subsp. nepalensis (Yamaz.) Yamazaki, comb. nov Pedicularis anas Maxim. var. tibetica Bonati in Bull. Herb. Boiss. ser. 2,
7: 544 (1907); Limpricht in Fedde, Rep. Spec. Nov. Veget. 20: 243 (1924).

Pedicularis cheilanthifolia Schr. subsp. nepalensis Yamazaki in Journ. Jap. Bot. 53: 326 (1978).

Hab. C. Nepal: Langtang Himal., 81°35′E, 28°14′N, in alpine meadows, 14,000 ft. (Stainton, July 28, 1962, no. 4072, type of *P. cheilanthifolia* ssp. nepalensis, BM); Dagpache, in scree, 16,000 ft. (Polunin, Aug. 13, 1949, no. 1751, BM). S.E. Tibet: Mt. Nyâso between Shgatse and Lhasa (E. Kawaguchi, Aug. 2, 1914, no. 88, TNS); Kyumorun plain, N. of Lhasa (E. Kawaguchi, Aug. 30, 1914, no. Lhasa 186, TNS); Penbo Khola, N. of Lhasa (E. Kawaguchi, Sept. 10, 1914, no. Lhasa 260, TNS); Khâba temple, N. of Lhasa (E. Kawaguchi,

Sept. 10, 1914, no. Lhasa 267, TNS); Mt. Sandoku Petsuri, near Lhasa (E. Kawaguchi, Sept. 25, 1914, no. Lhasa 361, TNS); Lhasa, 4100 m (G. Miehe, Aug. 26, 1984, no. 1252, TI).

Distr. C. Nepal, E. Tibet and W. China.

**Pedicularis pauciflora** (Prain) Pennell in Monogr. Acad. Nat. Sci. Philad. 5: 149 (1943).

Pedicularis megalantha D. Don var. pauciflora Prain ex Maxim. in Bull. Acad. Sci. St.-Pét. 32: 532 (1888); Prain in Ann. Bot. Gard. Calcutta 3: 118, t. 4 C, f. 10-15 (1891).

Pedicularis megalochila Li subsp. longituba Yamazaki in Juorn. Jap. Bot. 55: 294, f. 2 b, 3 f and g (1980), syn. nov.

Distr. Sikkim and E. Nepal. New to Nepal.

Pedicularis sikkimensis Bonati ex W.W. Smith in Rec. Bot. Surv. India 4: 401 (1913).

Pedicularis lamjungensis Yamazaki in Journ. Jap. Bot. 45: 167, t. 11, 17 (1970), syn. nov.

Distr. Sikkim and C. Nepal.

In the original description of *Pedicularis sikkimensis* it was reported that the radical leaves was verticillate and cauline ones opposite. The late Dr. Tsoong classified it into Series Sikkimenses (Fl. Reip. Pop. Sin. 68: 21, 1968), but this description is based on the erroneous observation. The type specimen preserved in the Herbarium of Bot. Gard. Calcutta (Sikkim, Changu, W.W. Smith, no. 3849) has the radical leaves alternate and fascicled at the base and the cauline leaves alternate or pseudo-opposite. Therefore, this species is near to *Pedicularis albiflora*, as W.W. Smith pointed out already in the original description.

ネパールにおけるシオガマギク属の新種と新見解の植物を報告し、また今までの同定の誤りを正した。ドイツの Göttingen 大学の地理学者 George Miehe 博士が、ヒマラヤのチベット側で採集したシオガマギク属の数種はチベットでは未記録のものであった。新記録といっても、ヒマラヤの高所ではネパール側もチベット側も種類に大差はないと思うので、記録として特筆するようなものではないが、チベットも含めた中国全体のシオガマギク属の詳細な研究をされた故鐘补求博士のモノグラフにも載っていないものなので記録しておく。